STATUS OF THE CLAIMS

1. (Previously Amended): A method of conditioning fused silica optics to reduce damage associated with absorption when said fused silica optics are operated in an environment where they will be exposed to high-power ultraviolet light having a wavelength of about 360 nm or less, comprising the steps of:

irradiating said fused silica optics with a conditioning laser beam of about 360 nm wavelength or less,

irradiating said fused silica optics in successive irradiating steps in ramp-like fashion, and

irradiating said fused silica optics with successive irradiating steps applied in increasingly higher fluences to reduce damage associated with absorption.

2. (Original): The method of claim 1 wherein said step of irradiating said fused silica optics with a conditioning laser beam of about 360 nm wavelength or less is conducted with a conditioning laser beam with a wavelength in the range of 360 nm to 150 nm.

3. (Original): The method of claim 2 wherein said step of irradiating said fused silica optics with a conditioning laser beam of about 360 nm wavelength or less is conducted with a conditioning laser beam of approximately 355 nm.

4. (Original): The method of claim 3 wherein said step of irradiating said fused silica optics with a conditioning laser beam of approximately 355 nm wavelength is conducted with substantially less than the fluence that could cause more than half the density of catastrophic damage sites in an unconditioned optic.

5. (Original): The method of claim 4, wherein said successive irradiating steps are continued until the density of catastrophic damage on said fused silica optics is expected to be reduced by at least a factor of 2.

6. (Original): The method of claim 5, wherein said high-power ultraviolet light having a wavelength of about 360 nm or less is also produced by said conditioning laser beam.

7. (Original): The method of claim 5, wherein said high-power ultraviolet light having a wavelength of about 360 nm or less is produced by an operating laser beam that is different from said conditioning laser beam.

8. (Original): The method of claim 7, wherein said operating laser beam has a wavelength at or near the wavelength of said conditioning laser beam.

9. (Original): The method of claim 7, wherein said operating laser beam has a pulse length that is shorter than the pulse length of said conditioning laser beam.

10. (Original): A method as in claim 7, wherein said operating laser beam has a pulse length that is longer than the pulse length of said conditioning laser beam.

11. (Previously Amended): A method of conditioning fused silica optics to reduce damage associated with absorption and operating said fused silica optics, comprising the steps of:

conditioning irradiating said fused silica optics with a conditioning laser beam of about 360 nm wavelength or less,

conditioning irradiating said fused silica optics in successive irradiating steps in ramp-like fashion,

conditioning irradiating said fused silica optics with successive irradiating steps applied in increasingly higher fluences to reduce damage associated with absorption , and

operating said fused silica optics in an environment where it is exposed to high-power ultraviolet light having a wavelength of about 360 nm or less.

12. (Original): The method of claim 11 wherein said step of irradiating said fused silica optics with a conditioning laser beam of about 360 nm wavelength or less is conducted with a conditioning laser beam with a wavelength in the range of 360 nm to 150 nm.

13. (Original): The method of claim 12 wherein said step of conditioning irradiating said fused silica optics with a conditioning laser beam of about 360 nm wavelength or less is conducted with a conditioning laser beam of approximately 355 nm.

14. (Original): The method of claim 13 wherein said step of conditioning irradiating said fused silica optics is conducted with substantially less than the fluence that could cause more than half the density of catastrophic damage sites in an unconditioned optic.

15. (Original): The method of claim 14, wherein said successive conditioning irradiating is continued until the density of catastrophic damage on said fused silica optics is expected to be reduced by at least a factor of 2.

16. (Original): The method of claim 11, wherein said high-power ultraviolet light is produced by an operating laser beam operated at wavelengths of about 360 nm or less.

17. (Original): The method of claim 16, wherein said operating laser beam is different from said conditioning laser beam.

18. (Original): The method of claim 17, wherein said operating laser beam has a wavelength at or near the wavelength of said conditioning laser beam.

19. (Original): The method of claim 17, wherein said operating laser beam has a pulse length that is shorter than the pulse length of said conditioning laser beam.

20. (Original): A method as in claim 17, wherein said operating laser beam has a pulse length that is longer than the pulse length of said conditioning laser beam.

21. (Original): The method of claim 16, wherein said operating laser beam is also said conditioning laser beam.

22. (Previously Amended): A method of conditioning fused silica optics to reduce damage associated with absorption when said fused silica optics are operated in an environment where they will be exposed to high-power light, comprising the steps of:

irradiating said fused silica optics with a conditioning laser beam,

irradiating said fused silica optics in successive irradiating steps in ramp-like fashion, and

irradiating said fused silica optics with successive irradiating steps applied in increasingly higher fluences to reduce damage associated with absorption.